

To all our customers

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Renesas Technology Corp.  
Customer Support Dept.  
April 1, 2003

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Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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# HSC277

Silicon Epitaxial Planar Diode for UHF/VHF tuner Band Switch



ADE-208-413A (Z)

Rev. 1  
Oct. 2000

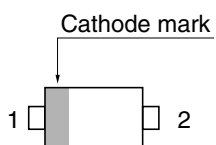
## Features

- Low forward resistance. ( $r_f = 0.7\Omega$  max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

## Ordering Information

Type No.	Cathode Mark	Package Code
HSC277	Laser	UFP

## Pin Arrangement



1. Cathode  
2. Anode

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	35	V
Junction temperature	Tj	125	°C
Power dissipation	Pd	150	mW
Operation temperature	Topr	-20 to +60	°C
Storage temperature	Tstg	-45 to +125	°C

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	$V_R$	35	—	—	V	$I_R = 10 \mu\text{A}$
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10 \text{mA}$
Reverse current	$I_R$	—	—	50	nA	$V_R = 25 \text{V}$
Capacitance	C	—	—	1.2	pF	$V_R = 6 \text{V}, f = 1 \text{MHz}$
Forward resistance	$r_f$	—	—	0.7	$\Omega$	$I_F = 2 \text{mA}, f = 100 \text{MHz}$

Main Characteristic

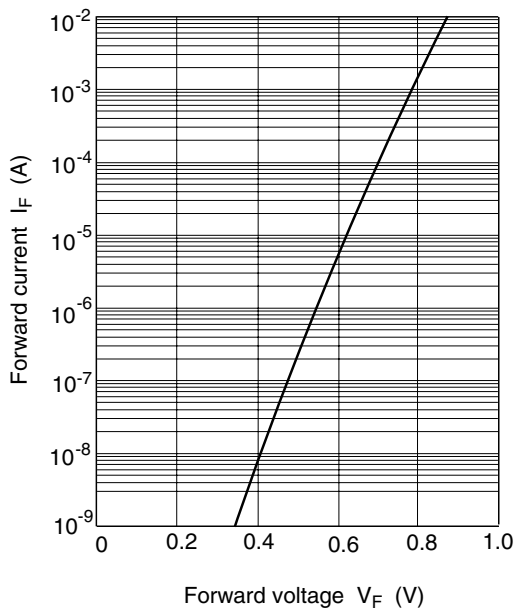


Fig.1 Forward current Vs. Forward voltage

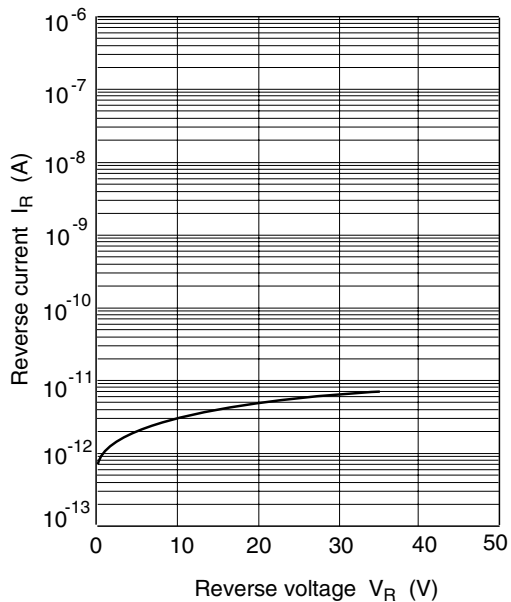


Fig.2 Reverse current Vs. Reverse voltage

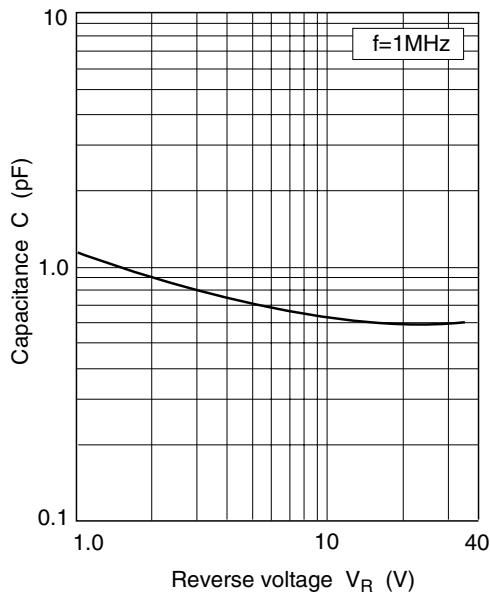


Fig.3 Capacitance Vs. Reverse voltage

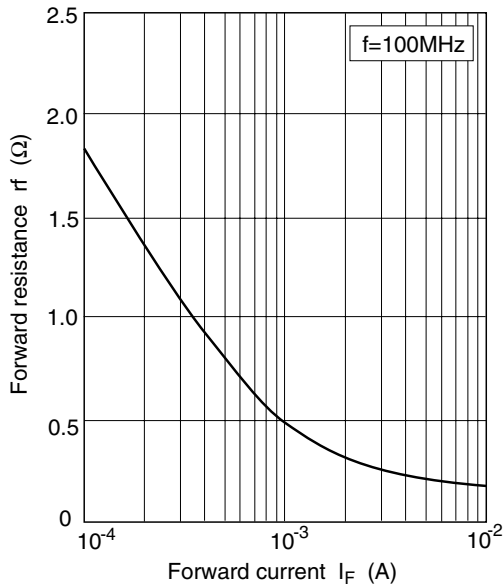
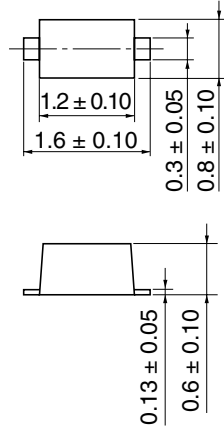


Fig.4 Forward resistance Vs. Forward current

## Package Dimensions

Unit: mm



Hitachi Code	UFP
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.0016 g

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